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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,246	03/24/2005	Gerhard Kelch	LO37-001	8650

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EXAMINER

LARYEA, LAWRENCE N

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/529,246	Applicant(s) KELCH ET AL.	
	Examiner Lawrence N. Laryea	Art Unit 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>27 Sep 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 2-4 and 17 are objected to because of the following informalities:

Regarding claim 2, at line 2 "as aberration" should read --as an aberration--.

Regarding claim 3, at line 2 "as aberration" should read --as an aberration--.

Regarding claim 4, at line 2 "as aberration" should read --as an aberration--.

Regarding claim 17, at line 1 "one" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 1-19 provide the use of method, but, since the claim does not set forth any steps involved in the method or process, it is unclear what method or process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

5. Regarding claim 1, the preamble spanning lines 1-4 is unclear and ambiguous as to what Applicant is claiming as the invention.

6. Further regarding claim 1, at line 3 the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

7. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation "measuring visual acuity," and the claim also recites "in particular by determining refraction and/or by measuring a wavefront and /or by skiascopy " which is the narrower statement of the range/limitation.

8. Further regarding claim 5, the limitation spanning lines 3-5 of the claims renders the claim indefinite because excessive use of "and/or" and the repetition of "by measuring a wavefront " renders the metes and bounds of the claim unclear and ambiguous.

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9. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 7 recites the broad recitation "said aberration," and the claim also recites "said aberrations of high order" which is the narrower statement of the range/limitation.

10. Regarding claims 8 and 9, at line 4 the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

11. Further regarding claims 8 and 9, at line 4, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

12. Regarding claims 10-12 the claim language is unclear with regard to what the various surfaces are introduced.
13. Regarding claim 18 the limitations spanning lines 3-7 are apparently redundant as well as vague and indefinite.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 1-19 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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16. Claims 1-5,7-9,17,18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by **Lai et al (Pub. 6836371)**.

17. **Lai et al** teach a method for producing a lens (**See Col. 19, line 32-37**) wherein low order aberrations are corrected in which sphere, cylinder and axis aberrations (**See Col. 17, line 26-27**) are compensated and wherein at least one refracting and diffracting (**See Col. 6, line 8-10**) surface of said lens (**progressive lens**) is configured in a way that for at least one direction of view both a dioptric correction (**See Col.5, line 63-67**), of the lower order aberrations and aberrations of higher order are performed (**including spherical, coma and trefoil, See Col. 17, line 27-28**).

18. Re claims 1 and 7, the effect of aberrations are inherent to the eye, since an eye has higher order aberrations, the effect of those aberrations on the visual acuity of the eye will change base on pupil size. This is due to the fact that the light entering the eye is limited by the pupil to a varying area of the cornea and crystalline lens of the eye. When the pupil is large, the retina receives a larger area of light coming through the cornea than when the pupil is small. Since the local aberration caused by the cornea is different at different locations on the cornea, the total aberration perceived by the eye changes with changes in the pupillary aperture size.

19. Re claim 5, **Lai et al** teach that a wavefront sensor is used to measure the wavefront aberrations of the eye to correct the aberrations. (**See Col. 17, line 23-24**).

20. Re claims 8 and 9, **Lai et al** teach a method that corrects part (**less than 100%**) or all (**100%**) eye aberrations. (**See Col. 19, line 33-36**).

21. Re claim 17, **Lai et al** teach that the lens is ophthalmic (contact, or intraocular or spectacle) lens. (**See Col. 17, line 31-32**).
22. Re claim 18, **Lai et al** teach that the lens (optics) could be configured to include refractive and diffractive elements (**See Col. 6, line 8-10**) by which the lens could correct higher aberrations.
23. Re claim 19, **Lai et al** teach that the lens can be made from different materials (plastic or glass). (**See Col. 1, line 19**)

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lai et al** in view of **Guirao et al (Patent 6511180)**.
26. **Lai et al** disclose a method for making a lens for correcting both lower and higher order aberrations wherein the wavefronts are measured with a wavefront sensor (**810**) but does not expressly disclose the wavefronts are measured with Hartmann-Shack sensor.
27. **Guirao et al** disclose a method for correcting aberration wherein the wavefronts are measured with Hartmann-Shack sensor. (**See Abstract 3-4 and line 10-11**).

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28. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a method similar to that of **Lai et al** for correcting aberrations wherein the wavefronts are measured with a Hartmann-Shack sensor similar to that of **Guirao et al** in order to measure eye aberrations quickly and accurately as taught **Guirao et al**.

29. Claims 10,11,15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lai et al** in view of **Morris et al (Patent 6454408)**.

30. **Lai et al** disclose a method for making a lens for correcting both lower and higher order aberrations but does not expressly disclose a region where high visual acuity is formed by introducing aspheric surface and atoric surface. Also, **Lai et al** does not expressly disclose a lens wherein a transition of a region with highest visual acuity into a region with slightly reduced visual acuity is performed smoothly, and through the edge.

31. **Morris et al** disclose a method for producing an ophthalmic lens wherein aspheric (**See Col. 7, line 23-25; Col. 33, line 11-12 and Col. 33, line 26-29**) and atoric (**See Col. 28, line 22; Col. 31, line 22-23**) corrections could be applied to a region in the lens. Also, **Morris et al** disclose a method for producing an ophthalmic lens wherein a transition of a region with visual acuity into a region with slightly reduced visual acuity is performed smoothly (**See Col. 14, line 34-36**), and through the edge (**See Col. 14, line 29-31**).

32. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a method similar to that of **Lai et al** to have region of

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highest visual acuity formed by introducing aspheric surface, atoric surface and a transition of a region with visual acuity into a region with slightly reduced visual acuity is performed smoothly, and through the edge similar to that of **Morris et al** method in order to further correct, eliminate astigmatic errors and for visual optimization of the lens as taught by **Morris et al**.

33. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lai et al** in view of **Tagnon (Patent 3722986)**.

34. **Lai et al** disclose a method for making a ophthalmic lens for correcting both lower and higher order aberrations but does not expressly disclose a region in the lens is corrected for a finite and an infinite object distance.

35. **Tagnon** discloses a method for producing an ophthalmic lens wherein a region in the ophthalmic lens is corrected for a finite and an infinite object distance. (**See Col. 4, line 11-13 and Col. 14, line 40-45**).

36. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a method similar to that of **Lai et al** to have region of an ophthalmic lens wherein the region in the lens is corrected for a finite and infinite object distance similar to that of **Tagnon** method such that the lens provides both near and far distance vision correction to a user.

37. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lai et al** in view of **Abitbol (Patent 6786602)**.

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38. **Lai et al** disclose a method for making a ophthalmic lens for correcting both low and high order aberrations but does not expressly disclose a region of highest visual acuity is formed by introducing a free form surface.

39. **Abitbol** discloses a method for producing an ophthalmic lens wherein a region of highest visual acuity is formed by introducing at least one free form surface. (**See Col. 10, line 32-33 and Col. 11, line 6-11**).

40. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a method similar to that of **Lai et al** to have region of an ophthalmic lens wherein a region of highest visual acuity is formed by introducing at least one free form surface similar to that of **Abitbol** method in order to correct both lower and higher order aberrations as taught by **Abitbol**.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Roffman et al (Patent 6554425) disclose a method for producing multifocal ophthalmic lenses that have zones of more than one optical power, or focal length. The lenses correct for high order optical aberrations in more than one field of gaze.

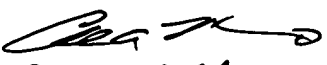
Menezes et al (Patent 6123422) disclose a method for making progressive addition lens and the result is achieved by combining two or more progressive addition surfaces, which surfaces in combination provide the dioptric add power of the lens.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence N. Laryea whose telephone number is 571-272-9060. The examiner can normally be reached on 8:30 a.m.-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LNL


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